

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (Currently amended) A method for modulating levels of vWF or FVIII in an animal, the method comprising  
administering to the animal an effective dose of an inhibitor of agent that causes an increase or a decrease in ST3Gal-IV sialyltransferase enzyme activity, wherein said animal is suffering from or is at risk of developing atherosclerosis or a blood clotting disorder, and whereby levels of vWF or FVIII in the animal are decreased.

2-5. (Canceled)

6. (Currently amended) The method of claim [[2]] 1, wherein the method is performed in conjunction with administration of a drug for which blood clotting is a potential side effect.

7. (Currently amended) The method of claim 6, wherein the ~~agent~~ ST3Gal-IV sialyltransferase inhibitor is administered before or simultaneously with the drug for which blood clotting is a potential side effect.

8. (Currently amended) The method of claim [[2]] 1, wherein the method is performed as a prophylactic measure against atherosclerosis.

9. (Original) The method of claim 8, wherein the atherosclerosis is associated with coronary artery disease or peripheral vascular disease.

10. (Currently amended) The method of claim [[2]] 1, wherein the method is performed as a therapeutic measure against atherosclerosis.

11. (Original) The method of claim 10, wherein the atherosclerosis is associated with coronary artery disease or peripheral arterial disease.

12. (Currently amended) The method of claim [[2]] 1, wherein platelet formation is not significantly affected by administration of the ~~agent~~ ST3Gal-IV sialyltransferase inhibitor to the animal

13-28. (Canceled)

29. (New) The method of claim 1, further comprising monitoring the animal for levels of vWF or FVIII.

30. (New) The method of claim 29, further comprising adjusting the dose of the ST3Gal-IV sialyltransferase inhibitor to maintain vWF at a desired level.

31. (New) The method of claim 29, wherein the ST3Gal-IV sialyltransferase inhibitor is a competitive inhibitor of ST3Gal-IV substrate.

32. (New) The method of claim 31, wherein the ST3Gal-IV sialyltransferase inhibitor is a structural analog of a ST3Gal-IV substrate.

33. (New) The method of claim 32, wherein the substrate is a donor substrate.

34. (New) The method of claim 33, wherein the donor substrate is CMP-sialic acid.

35. (New) The method of claim 32, wherein the substrate is an acceptor substrate.

36. (New) The method of claim 32, wherein the structural analog is a transition state analog.

37. (New) The method of claim 6, wherein the drug for which blood clotting is a potential side effect is selected from the group consisting of an anti-cancer drug, a corticosteroid, raloxifene, and a birth control agent.

38. (New) The method of claim 37, wherein the anti-cancer drug is tamoxifen.

39. (New) The method of claim 37, wherein the birth control agent is an estrogen or a progestin.